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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/090,763 | 03/06/2002 | Markus Holze | 52240 | 7165 |

26474 7590 10/23/2003
KEIL & WEINKAUF
1350 CONNECTICUT AVENUE, N.W.
WASHINGTON, DC 20036

EXAMINER

MEDINA SANABRIA, MARIBEL

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1754

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,763

Applicant(s)

HOLZLE ET AL.

Examiner

Maribel Medina

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,4,6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 does not positively recite any steps in the process. It is not clear what the metes and bounds of the process are, i.e. there are no steps of the process claimed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent No. 5,928,985 (Williams).

Williams discloses a passivated copper and zinc oxide and/or alumina catalyst and its use for the process of carbon monoxide shift reaction. (See col. 1, lines 1-15).

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In the event any differences can be shown for the product of the product by process claim 6 as opposed to the product taught by Williams, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results; see also *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985).

6. Claims 1-5, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,928,985 (Williams) in view of US Patent No. 6,051,163 (Kumberger et al)

In regards to claims 1, 2, 3, and 4, Williams discloses a process for the preparation of a passivated copper and zinc oxide and/or alumina by: (1) precipitating a mixture of catalyst precursors components such as a copper salt with sodium carbonate (instantly claimed anion-containing precipitating agent) with other ingredients precursors (i.e. zinc oxide and alumina) forming a precursor thereof; (2) calcining the precursor formed in step (1); and shaping into pellets, reducing and passivating the catalyst thereof (See col. 1, lines 1-15 and col. 2, lines 42-65).

Williams fails to disclose the limitation of claim 1 step (1) that reads "washing and drying to form a solid catalyst precursor in the form of powder and granules".

Kumberger et al is relied upon to teach a method for making a copper, alumina and zinc oxide catalyst wherein after precipitation of the precursors the catalyst is washed and dried and formed into powder or granules (Se col. 4, lines 19-37, and the claims).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have washed; dried and formed into a powder or granules the catalyst of Williams since these are common steps performed in catalyst preparation methods as taught by Kumberger et al.

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Williams discloses the calcination of the catalyst precursor but fails to disclose the limitation of claim 1 step (2) that reads "to an anion content from the precipitating agent of from 0.1 to 2.5% by weight". However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have obtained an anion content in the instantly claimed range in Williams catalyst, since the same calcination step is performed. This range of concentration of the anion (i.e. carbonate) would have been inherently present once the calcination is performed in Williams method.

In regards to claim 5, Kumberger et al claims disclose the instantly claimed limitations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used any well known method of preparing the catalyst precursor such as the one taught by Kumberger et al in Williams method, since Williams discloses that this catalyst precursor can be obtained by any precipitation route (See col. 2, lines 42-67).

In regards to claim 7, Williams does not disclose using his catalyst for the steam reforming of methanol.

Kumberger et al is relied upon to teach the use of copper, zinc oxide and alumina containing catalyst for the steam reforming of methanol at pressure in the range from 1 to 25 bar and temperatures in the range from 180-400°C. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the catalyst disclosed by Williams in the steam reforming method of Kumberger et al since this is a common an known use for catalyst of the instantly claimed composition as taught by Kumberger et al.

In regards to claim 9, Williams disclose that the volume shrinkage of the catalyst is reduced by his method (See col. 4, lines 31-45).

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Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-7 and 9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/090,762. Although the conflicting claims are not identical, they are not patentably distinct from each other. The only difference between the instant claims and the claims of SN 10,090,762 is that the claims of the copending application does not recite the limitation that reads "to an anion content from the precipitating agent of from 0.1 to 2.5% by weight" however the property would have been inherently provided by the claims of the copending application, once the calcinations step is carried out in the method of making the catalyst.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

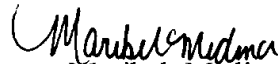
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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maribel Medina whose telephone number is (703) 305-1928. The examiner can normally be reached on Monday through Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (703) 308-3837. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Maribel Medina
Examiner
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